

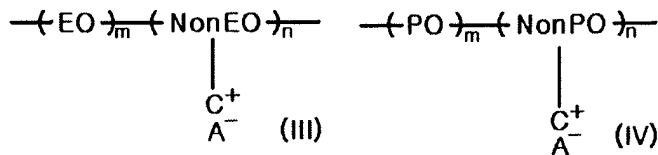
### AMENDMENTS TO THE CLAIMS

1. (Canceled)
2. (Canceled)
3. (Currently Amended) The electroluminescent device of ~~Claim 1~~ Claim 16, wherein the substrate comprises a material selected from the group consisting of glass, quartz, and polyethylene terephthalate.
4. (Currently Amended) The electroluminescent device of ~~Claim 1~~ Claim 16, wherein the first electrode comprises a material selected from the group consisting of lead oxide, indium tin oxide, doped polyaniline, doped polypyrrole, doped polythiophene, and polyethylene dioxythiophene.
5. (Currently Amended) The electroluminescent device of ~~Claim 1~~ Claim 16, wherein the emissive layer comprises a material selected from the group consisting of emissive conjugated polymer, emissive non-conjugated polymer, emissive monomeric or oligomeric material, poly(meta-methylacrylic acid), poly(styrene), and poly(9-vinylcarbazole).
6. (Previously Presented) The electroluminescent device of Claim 5, wherein the emissive conjugated polymer is selected from the group consisting of poly(*p*-phenylene vinylene), poly(thiophene), poly(*p*-phenylene), poly(fluorene), poly(arylenes), poly(arylene vinylene), polyquinoline, polypyrrole, polyaniline, polyacetylene, and derivatives thereof.
7. (Previously Presented) The electroluminescent device of Claim 5, wherein the emissive non-conjugated polymer is a polymer having non-conjugated main chains and side chains substituted with emissive functional groups.
8. (Previously Presented) The electroluminescent device of Claim 5, wherein the emissive monomeric or oligomeric material is selected from the group consisting of alumina quinone, rubrene, anthracene, perylenene, coumarine 6, Nile red, aromatic diamine, N,N'-diphenyl-N,N'-bis-(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine), (3-(4-biphenyl)-4-phenyl-5-(4-tert-butylphenyl)-1,2,4-triazole), (dicyanomethylene)-2-methyl-6-(*p*-dimethylaminostyryl)-4*H*-pyran), and derivatives thereof.
9. (Currently Amended) The electroluminescent device of ~~Claim 1~~ Claim 16, wherein the second electrode comprises a material selected from the group consisting of

aluminum, magnesium, lithium, calcium, copper, silver, iron, platinum, indium, palladium, tungsten, zinc, gold, lead, and alloys thereof.

10. (Canceled)

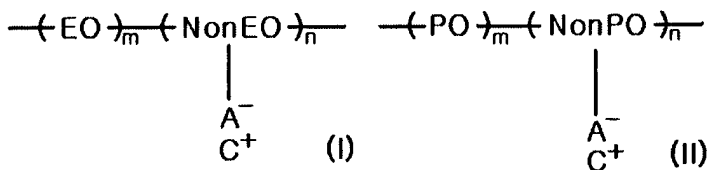
11. (Currently Amended) The electroluminescent device of ~~Claim 1~~ Claim 16, wherein the polymeric compound is represented by one or more formulas selected from the group consisting of the formula (III) and formula (IV),



wherein EO represents ethylene oxide; NonEO represents non-ethylene oxide; PO represents propylene oxide; NonPO represents non-propylene oxide; A<sup>-</sup> represents an anion; C<sup>+</sup> represents a cation; m + n = 1; and n represents a number more than 0 and less than 1.

12. (Canceled)

13. (Currently Amended) The electroluminescent device of ~~Claim 12~~ Claim 16, wherein the polymeric compound is represented by one or more formulas selected from the group consisting of the formula (I) and the formula (II),



wherein EO represents ethylene oxide; NonEO represents non-ethylene oxide; PO represents propylene oxide; NonPO represents non-propylene oxide; A<sup>-</sup> represents an anion; C<sup>+</sup> represents a cation; m + n = 1; and n is a number more than 0 less than 1.

14. (Currently Amended) An electroluminescent device comprising:

a ~~transparent~~ substrate;

a ~~semitransparent~~ first electrode deposited on the ~~transparent~~ substrate;

a hole-injecting layer positioned on the ~~semitransparent-first~~ electrode, the hole-injecting layer comprising a polymeric compound and a movable anion, the polymeric compound having at least one block of  $[O-(CH_2)_x]_y$  units and at least one non-movable cationic moiety, wherein x is an integer equal to or greater than two, wherein y is an integer equal to or greater than ~~[[two]]~~ one;

an emissive layer comprising an organic electroluminescent material, positioned on the hole-injecting layer;

an electron-injecting layer positioned on the emissive layer, the electron-injecting layer comprising a polymeric compound and a movable cation, the polymeric compound having at least one block of  $[O-(CH_2)_{x'}]_{y'}$  units and at least one non-movable anionic moiety, wherein x' is an integer equal to or greater than two, wherein y' is an integer equal to or greater than ~~[[two]]~~ one; and

a ~~metal~~ second electrode deposited on the electron-injecting layer.

15. (Currently Amended) An electroluminescent device comprising:

a ~~transparent~~ substrate;

a ~~semitransparent-first~~ electrode deposited on the ~~transparent~~ substrate;

an electron-injecting layer ~~comprising~~ positioned on the ~~semitransparent-first~~ electrode, the electron-injecting layer comprising a polymeric compound and a movable cation, the polymeric compound having at least one block of  $[O-(CH_2)_{x'}]_{y'}$  units and at least one non-movable anionic moiety, wherein x' is an integer equal to or greater than two, wherein y' is an integer equal to or greater than ~~[[two]]~~ one;

an emissive layer comprising an organic electroluminescent material, positioned on the electron-injecting layer;

a hole-injecting layer positioned on the emissive layer, the hole-injecting layer comprising a polymeric compound and a movable anion, the polymeric compound having at least one block of  $[O-(CH_2)_x]_y$  units and at least one non-movable cationic moiety, wherein x is an integer equal to or greater than two, wherein y is an integer equal to or greater than ~~[[two]]~~ one; and

a ~~metal~~ second electrode deposited on the hole-injecting layer.

16. (Currently Amended) An electroluminescent device comprising:

a ~~transparent~~-substrate;

a ~~semitransparent~~-first electrode deposited on the ~~transparent~~-substrate;

a hole-injecting layer positioned on the ~~semitransparent~~-first electrode, the hole-injecting layer comprising a polymeric compound and a movable anion, the polymeric compound having at least one block of  $[O-(CH_2)_x]_y$  units and at least one non-movable cationic moiety, wherein x is an integer equal to or greater than two, wherein y is an integer equal to or greater than ~~[[two]]~~ one;

an emissive layer comprising an organic electroluminescent material, positioned on the hole-injecting layer; and,

a ~~metal~~-second electrode deposited on the emissive layer.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) An electroluminescent device comprising:

a ~~transparent~~-substrate;

a ~~semitransparent~~-first electrode deposited on the ~~transparent~~-substrate;

an emissive layer comprising an organic electroluminescent material, positioned on the ~~semitransparent~~-first electrode;

a hole-injecting layer positioned on the emissive layer, the hole-injecting layer comprising a polymeric compound and a movable anion, the polymeric compound having at least one block of  $[O-(CH_2)_x]_y$  units and at least one non-movable cationic moiety, wherein x is an integer equal to or greater than two, wherein y is an integer equal to or greater than ~~[[two]]~~ one; and

a ~~metal~~-second electrode deposited on the hole-injecting layer.

20. (Canceled)

21. (Canceled)

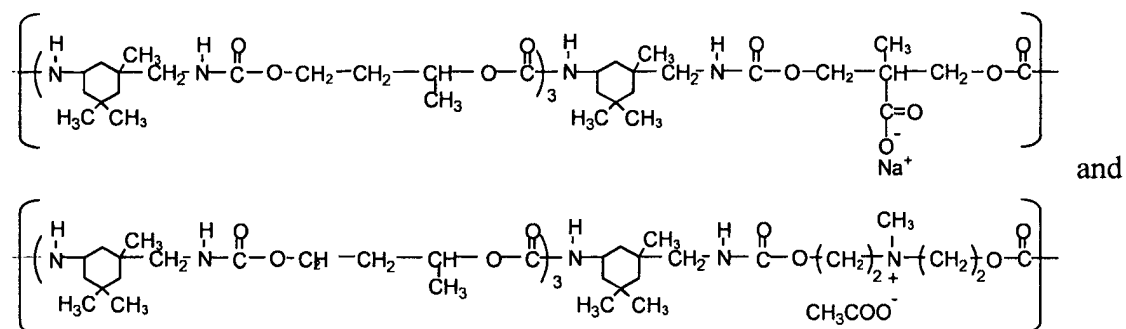
22. (Canceled)

23. (Canceled)

24. (Canceled)

**Appl. No.** : 09/995,816  
**Filed** : Nov. 27, 2001

25. (Currently Amended) The electroluminescent device of ~~Claim 2~~ Claim 16, wherein the polymeric compound comprises one or more segments selected from the group consisting of:



wherein  $\text{Na}^+$  and  $\text{CH}_3\text{COO}^-$  are the movable ions.